

MONTHLY REPORT

1 November - 30 November 1958

SYSTEMS ENGINEERING BRANCH
ENGINEERING STAFF

25X1A9A

25X1C4A

2. Work was started on matching networks for coupling the output of the RS-16 to antennas [] in the Middle East. Investigations showed that the AN/SRA-20 antenna tuner might perform this function; therefore, one was purchased and an analysis of its performance into various lengths of antennas was begun.

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25X1A2G

25X1A9A

25X1A

3. A recent dispatch from [] suggests that two additional 200 kw Diesel generators will be needed to handle the extra load imposed at the [] receiving site by the new restaurant and the [] expansion. When the undersigned and [] were in [] on TDY this past May, it was decided that one 100 kw generator would take care of this extra load; therefore, the suggestion of two 200 kw units came as quite a surprise. The Real Estate and Construction Division has approved the installation of one 100 kw generator and [] has been informed of this. The installation of commercial power is recommended if the load exceeds the power which can be supplied by the present three 97 kw units plus a new 100 kw generator.

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25X1A

4. An alarm system has been developed which will recognize ^{an early} normally encrypted word of a cable (CITE) if this word appears on the tele-type tape in plain text. The system will immediately stop the transmitter-distributor before further information is sent and therefore will almost eliminate the possibility of a classified cable being transmitted in plain text. This device was successfully demonstrated in the OC conference room and is now undergoing tests in the Signal Center (See Project E-5138).

5. Specifications and a procurement memorandum were forwarded to MSB to initiate action to procure approximately \$260,000 worth of Teletype equipment. The equipment to be procured is of the Model 28 line and will be used for warehouse stock and in support of the KW-26 program which is scheduled to begin early next year.

25X1A6A

6. We have been advised by OC-S that a target date of February 1959 has been established for the installation of a Teletape system [redacted]. Some time ago a Tiny Tot in the Headquarters Signal Center was modified for use with the Teletape Program. This modification included the installations of a second TD, a center feed unwind reel, and a tape take-up reel. This modification was performed in a hurry and is not final as far as the placement of the reel assemblies is concerned. Work is now in progress to clean up this portion of the modification and prepare installation drawings and instructions to forward [redacted].

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7. Maintenance instructions for the VHF Mobile Communications System [redacted] have been prepared and have been translated into French. These instructions will be pouched [redacted] in the immediate future.

8. Heathkit voice operated relays were previously shipped [redacted] to provide a "quick and dirty" automatic alarm feature for two way HF Radio-telephone system. These units will be replaced by the [redacted] 25X1A5A1 EC-30-A Tone Dispatcher. This tone dispatcher was tested with the [redacted] 25X1A5A1 SSB-1 and results showed it to be much more satisfactory and reliable than the Heathkit relays. The requirement for the alarm is such that the base station be able to contact any or all of the field stations and the field stations contact only the base. It is estimated that the cost of the [redacted] equipment will be in the neighborhood of \$5,000.

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25X1A5A1

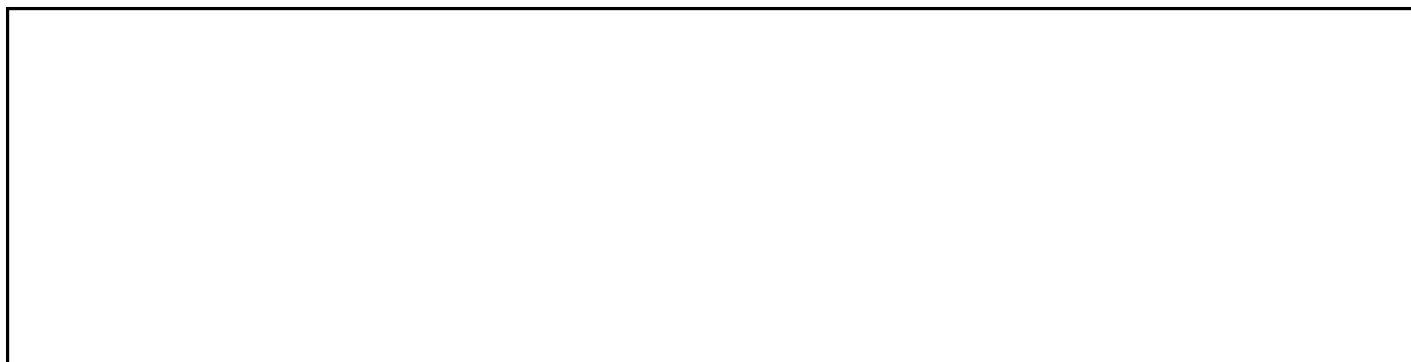
9. During this reporting period we received a quotation from [redacted] Corporation covering the development costs of a Model 28 version of our Tiny Tot. The cost of a prototype unit was \$29,700 with delivery in six months. This approach to develop a unit which would replace our Tiny Tot was abandoned in favor of a mechanical Combiner/Printer on which we have asked [redacted] to submit a quotation covering the development costs for a prototype. The unit we have in mind would be a combination of Teletype's Two Tape to One Tape Combiner and their mechanical printer.

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10. In view of the anticipated continuing requirement for communi-

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12. The Drafting unit has prepared 97 drawings of which 19 were forwarded to six field stations as part of BYBECI.

13. NEW PROJECTS

- E-5139 - Investigation of Possibility of Increasing Speed of Teletype Staff Communications
- E-5145 - Engineering of Antenna Matching Network for Operation with RS-16 [redacted]
- E-5144 - OC-SP Dual Electronic Power Supply
- E-5146 - Field Alignment Procedure for 51-J Receivers

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14. TRANSFERRED PROJECTS

- E-5119 - Commercial Power Installation - [redacted]
Transferred to [redacted]

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15. INACTIVE PROJECTS

- E-5085 - Communications Systems Planning, New Building
- E-5111 - Agent Radiotelephone Net - [redacted]
- E-5112 - [redacted] Radio Station
- E-5126 - [redacted]
- E-5080 - Mobile Message Center
- E-5123 - Antenna Systems for [redacted]
- E-5103 - Multiplex System for Base Station to Sub-Base Stations Communications
- E-5130 - Miniaturized Test Equipment
- E-5137 - Coaxial Output Network for the 231-D Transmitter

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16. COMPLETED PROJECTS



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Approved For Release 2002/08/26 : CIA-RDP78-02820A000400040036-4

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